Abstract

An object of the present invention is to form a thin film reproducibly in a process for forming the thin film on the inner wall surface facing a space formed in a substrate by plasma CVD. A thin film 22 is produced on an inner wall surface 20b of a substrate 20 facing a space 23 formed in the substrate 20. The substrate 20 is contained in a chamber for plasma CVD process. A gas for plasma reaction is then flown into the space 23 and a pulse voltage is applied on the substrate 20 without substantially applying a direct bias voltage on the substrate 20 to form the thin film on the inner wall surface 20b.